THE GENUS *STREPTOSYLLIS* WEBSTER AND BENEDICT, 1884 (POLYCHAETA: SYLLIDAE: EUSYLLINAE) FROM THE CANARY ISLANDS, WITH DESCRIPTION OF A NEW SPECIES

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ABSTRACT

Four species of the genus *Streptosyllis* from the Canary Islands are reported and described: *S. bidentata, S. websteri, S. templadoi* and *S. campoyi* n. sp. The new species is characterized by compound setae with falcate teeth and a unique distribution of the enlarged aciculae. The species *S. templadoi* is a new record to the Atlantic, and *S. bidentata* and *S. websteri* are newly recorded from the Canary Islands. Original drawings of these species are provided, as well as data on their autoecology. A key to the species of *Streptosyllis* from the Canary Islands is provided.

The genus *Streptosyllis* was erected by Webster and Benedict (1884) for the species *S. arenae* from the coast of Massachusetts; later the same authors described (1887) another species *S. varians* for Maine. Southern (1914) described the two first species of this genus for the east Atlantic Ocean: *S. bidentata* and *S. websteri*, both from Ireland. Currently, this genus is composed of about 15 species (Ding and Westheide, 1994), differing mainly from the shape of the setae and number of enlarged aciculae; the genus is characterized by having an unarmed eversible pharynx as well as knobbed acicula and modified compound setae on a few anterior parapodia.

Four species of this genus, collected in the Canary Islands, are reported and described herein: *S. bidentata, S. websteri*, *S. templadoi* and *S. campoyi* n. sp. The species *S. bidentata* and *S. websteri* are so similar, that misidentifications have occurred. Accordingly, we have redescribed these species stating the differences between them. *S. templadoi* is redescribed on the basis of a several complete specimens, because the original description was based on only a few incomplete worms. Data on the ecology of these four species in the Canary Islands are provided, as well as the known distribution.

Materials and Methods

The material was collected in 10 stations (Fig. 1, Table 1) during seven expeditions from December 1993 to August 1995 in the islands Lanzarote, Fuerteventura, Gran Canaria, Tenerife, La Palma and El Hierro in the Canary Islands. The samples were collected in connection with a study of the meiobenthos from sand bottom and seagrass (*Cymodocea nodosa*). Additional material collected from sandy bottoms at three stations at La Gomera is included; these samples were collected with a Van Ven dredge at 23–45 m depth.

The sediment samples of *C. nodosa* were collected by scuba-diving at 5–24 m depth. At each station, five samples were taken using a PVC cores covering an area of 16 cm^2, and pushed into sediment to a depth of 30 cm. Each sample was divided into three parts of 0–10, 10–20 and 20–30 cm, for the study of the vertical distribution of species. The samples were fixed with 10% formalin. The sediment was then washed and screened through a 100 μm mesh sieve. The specimens were transferred to 70% ethanol. Some specimens were mounted whole in permanent microscopic slides in glycerine jelly; examination was made by means of a compound microscope provided with dif-

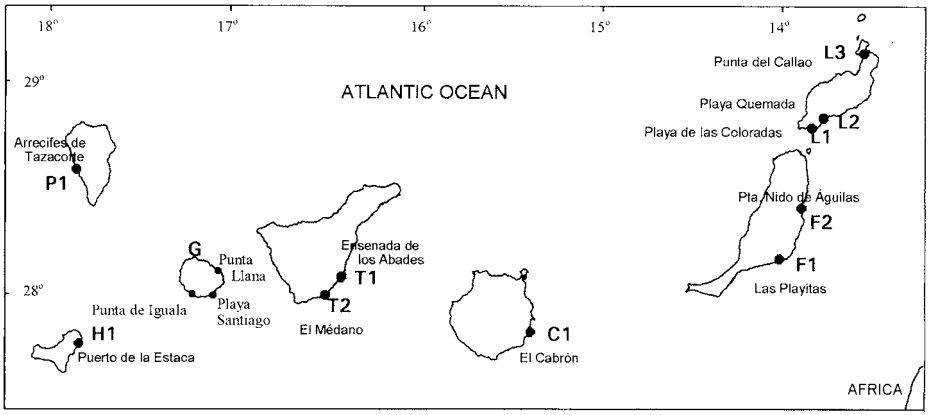

Figure 1. Map of Canary Island showing collected stations. L = Lanzarote, F = Fuerteventura, C = Gran Canaria, T = Tenerife, G = La Gomera, P = La Palma, H = El Hierro.

ferential interference contrast optics (Nomarski). Drawings were made to scale with a camera lucida drawing tube.

Samples of 100 g of sediment for granulometric analysis were passed through a stack of six sieves according to the Wentworth scale (Buchanan, 1984). The median grain size (Md), the sorting coefficient (So) and the sorting class of the sediment were calculated graphically for the sediment fractions. Organic matter was determined on a 0.5 g sediment sample using the Walkey-Black method (Walkey, 1947) of assessment of oxidizable organic carbon, adopted and modified by Jackson (1960). Carbonate content was quantified by means of a Bernard calcimeter following Allison and Moodie's method (1965). Nitrogen were estimated employing Kjeldahl's technique on a Buch 435 Digestion kit, and a Bulhi 323 distiller with 1/14 N sulphuric acid.

The specimens have been deposited at the Museo of Ciencias Naturales, Santa Cruz of Tenerife (TFMC), at the Departamento de Biología Animal (Zoología) of the Universidad de La Laguna (DZUL), Canary Islands.

Systematics

Genus *Streptosyllis* Webster and Benedict, 1884
Streptosyllis bidentata Southern, 1914
(Fig. 2A–H)

Streptosyllis bidentata Southern, 1914: 28, pl. 3, fig. 4a–f.—Fauvel, 1923: 282, fig. 106h–r.
Streptosyllis websteri (*non* Southern) San Martín, 1984: 122, pl. 21.
Non *Streptosyllis bidentata* Campoy, 1982: 314, pl. XXV.

Material Examined.—Lanzarote: Playa de las Coloradas, Dec. 1993 (2 spec.); Playa Quemada, Dec. 1993 (16); Punta del Callao, Mar. 1995 (6). Fuerteventura: Las Playitas, Sep. 1994 (1). Gran Canaria: El Cabrón, Mar. 1994 (22). Tenerife: Ensenada de los Abades, Jan. 1994 (15); Feb. 1994 (8); Mar. 1994 (46); Apr. 1994 (20); May 1994 (9); Jun. 1994 (13); Jul. 1994 (12); Aug. 1994 (7); Sep. 1994 (14); Oct. 1994 (20); Nov. 1994 (26); Dec. 1994 (12); El Médano, Jun. 1994 (25). La Palma: Arrecifes de Tazacorte, Mar. 1994 (6). El Hierro: Puerto de la Estaca, Aug. 1995 (3).

Table 1. Characteristic granulometric for sediment samples in relation to depth (cm) in the sediment (Q_{50} = Median in mm; S_0 = Coefficient sorting of Trask), percentages of Carbonates (% Carb.), Organic Matter (% O.M.) and Nitrogen (% N), species (*S.b.* = *S. bidentata*; *S.w.* = *S. websteri*; *S.t.* = *S. templadoi*; *S.c.* = *S. campoyi*) and number of individuals in the sampling stations (n).

Stations	Depth in the sediment (cm)	Sediment types	Q_{50} (mm)	S_0	Sorting class	% Carb.	% O.M.	% N	*S.b.* (n)	*S.w.* (n)	*S.t.* (n)	*S.c.* (n)
L1	0–10	Muddy sand	0.13	1.47	Moderately sorted	61.01	0.60	0.027	2	4	0	0
L1	10–20	Muddy sand	0.18	2.78	Very poorly sorted	76.75	0.52	0.027	0	0	0	0
L1	20–30	Muddy sand	0.17	2.24	Poorly sorted	72.24	0.51	0.027	0	0	0	0
L2	0–10	Muddy sand	0.34	1.49	Moderately sorted	4.12	0.65	0.020	14	48	0	25
L2	10–20	Muddy sand	0.35	1.27	Mod. well sorted	3.03	0.68	0.013	0	2	0	0
L2	20–30	Muddy sand	0.36	1.32	Mod. well sorted	2.90	1.50	0.013	2	0	0	2
L3	0–10	Fine sand	0.20	1.48	Moderately sorted	73.07	0.59	0.028	6	48	0	0
L3	10–20	Medium sand	0.45	2.56	Poorly sorted	66.80	0.75	0.025	0	0	0	0
L3	20–30	Medium sand	0.40	2.56	Poorly sorted	62.98	0.87	0.021	0	0	0	0
F1	0–10	Fine sand	0.19	1.36	Moderately sorted	20.31	0.60	0.016	0	27	0	0
F1	10–20	Fine sand	0.19	1.32	Mod. well sorted	19.08	0.38	0.012	0	2	0	0
F1	20–30	Fine sand	0.19	1.40	Moderately sorted	21.78	0.40	0.013	1	0	0	0
F2	0–10	Fine sand	0.19	1.30	Mod. well sorted	56.79	0.367	0.011	0	0	0	0
F2	10–20	Fine sand	0.18	1.27	Mod. well sorted	51.00	0.42	0.018	0	0	0	0
F2	20–30	Fine sand	0.19	1.29	Mod. well sorted	51.00	0.35	0.028	0	0	0	0
C1	0–10	Fine sand	0.22	1.49	Moderately sorted	30.92	0.21	0.025	21	0	0	0
C1	10–20	Fine sand	0.19	1.31	Mod. well sorted	32.39	0.33	0.019	0	0	0	0
C1	20–30	Fine sand	0.18	1.31	Mod. well sorted	35.41	0.45	0.027	1	0	0	0
T1	0–10	Fine sand	0.22	1.66	Moderately sorted	7.50	0.49	0.032	202	48	24	74
T1	10–20	Fine sand	0.24	1.65	Moderately sorted	2.14	0.44	0.023	0	2	0	0
T1	20–30	Medium sand	0.33	1.62	Moderately sorted	2.78	0.42	0.023	0	0	0	0
T2	0–10	Medium sand	0.30	1.53	Moderately sorted	18.02	0.42	0.026	22	0	0	0
T2	10–20	Fine sand	0.22	1.57	Moderately sorted	8.26	0.35	0.022	3	0	0	0
T2	20–30	Fine sand	0.18	1.36	Moderately sorted	4.99	0.51	0.025	0	0	0	0
P1	0–10	Fine sand	0.21	1.60	Moderately sorted	5.38	0.28	0.015	6	1	0	2
P1	10–20	Fine sand	0.21	1.47	Moderately sorted	4.39	0.22	0.025	0	0	0	0
P1	20–30	Medium sand	0.26	1.71	Moderately sorted	6.54	0.13	0.013	0	0	0	0
H1	0–10	Fine sand	0.19	1.34	Mod. well sorted	5.05	0.39	0.016	3	15	0	0
H1	10–20	Fine sand	0.20	1.59	Moderately sorted	3.66	0.52	0.014	0	0	0	0
H1	20–30	Fine sand	0.23	2.69	Poorly sorted	2.92	0.49	0.012	0	0	0	0

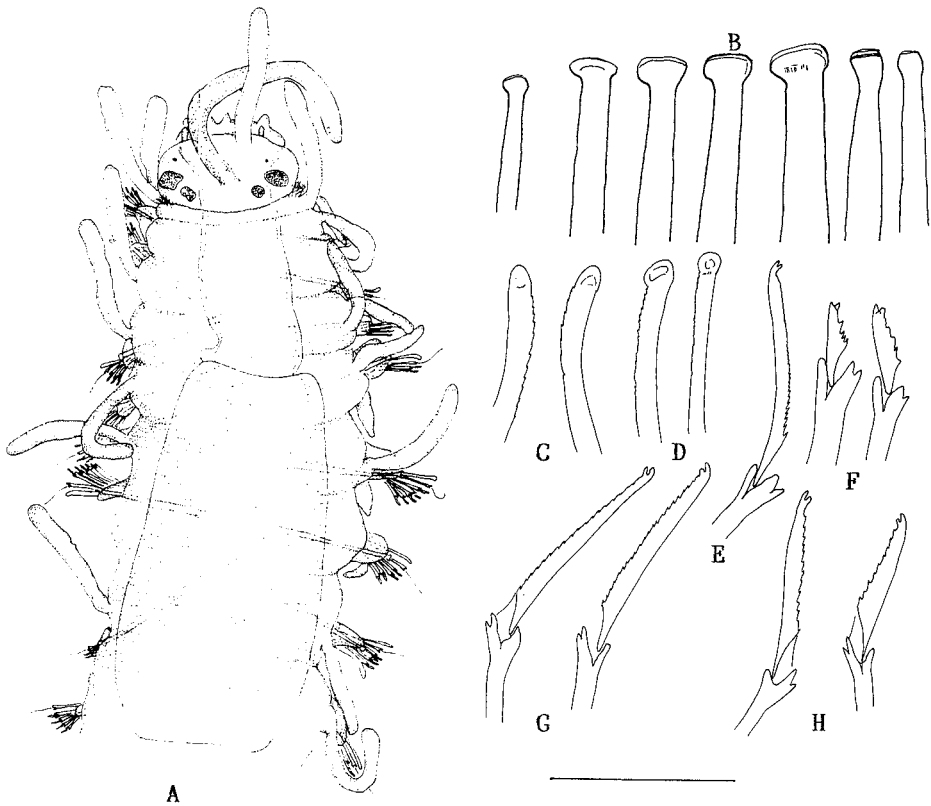

Figure 2. *Streptosyllis bidentata.* A. anterior end, dorsal view, B. aciculae, anterior setigers 1–7, C. superior simple setae, setigers 1 and 3, D. same, setigers 8 and 11, E. upper compound seta, setiger 2, F. lower compound setae, setiger 2, G. upper compound setae, setiger 11, H. lower compound setae, setiger 11. Scale: A = 140 μm; B–H = 30 μm.

Additional Material Examined.—Balearic Islands (Spain): NW Ibiza Island, sand, 4 m depth (4). Formentera Island, 3 m depth (1); fine sand, 3 m depth (1).

Description.—Body fragile, small, widest at proventricular level, tapering slightly anteriorly and tapering strongly posteriorly, without color marking, 2.50 mm long, 0.23 mm wide, 29 setigers. Prostomium oval, twice wider than long, with two pairs large eyes in open trapezoidal arrangement and two anterior eyespots; two ciliated nuchal organs laterally between prostomium and peristomium. Antennae smooth, slightly longer than prostomium and palps together; median antenna originating between anterior pair of eyes; lateral antennae originating near anterior margin of prostomium. Palps with a pair of cushion-shaped ventral lobes and a pair of papillae. Peristomium shorter than remaining segments, visible dorsally, with two pairs of smooth tentacular cirri; dorsal tentacular cirri similar in length to lateral antennae and ventral tentacular cirri somewhat shorter (Fig. 2A). Dorsal cirri smooth, club-shaped, distally enlarged, similar in length and shape to lateral antennae and dorsal tentacular cirri; some dorsal cirri with granular structures, appearing as pseudoarticulated. Ventral cirri digitiform, longer than parapodial lobe and setae.

Solitary dorsal simple setae unidentate, from setiger 1, slightly curved with serrated margin provided with a rounded, hyaline distal hood from setigers 6–7 (Fig. 2C,D). Parapodia of setigers 1–6 each with two kinds of compound setae, one upper long-bladed, slender and serrate on cutting edge, distally bidentate (Fig. 2E) and four lower setae, stout, short-bladed falcigers, serrated on margin (Fig. 2F). Shaft of compound setae distally bifid. Compound setae from setiger 7, numbering 4 on each parapodia, with relatively long, bidentate falcigers blades; dorso-ventral gradation, 32 μm above, 16 μm below in midbody, serrate on cutting edge (Fig. 2G,H). Ventral simple setae absent. Aciculae of setigers 2–5 about twice as thick as those of the other setigers, and aciculae of parapodia of setiges 6–7 slightly thicker than those of remaining parapodia (Fig. 2B). All aciculae with tip distally knobbed; each parapodia with one acicula. Pygidium sub-triangular with three anal cirri, one pair laterally long and a short midventral cirri. Pharynx broad, with terminal papillae, unarmed, extending from anterior end to setiger 3. Proventriculus long, barrel-shaped, extending through about five segments.

Sexually mature male specimens with sexual products beginning setigers 8–11; female with eggs from setiger 10. Coalescent eyes reddish-brown, with lenses; natatory setae in males.

Remarks.—Southern (1914) described *S. websteri* and *S. bidentata*, two close by related species which differ on details of the setae and the number of segments provided with enlarged aciculae (see the key). The key proposed by Southern to separate both species is only based on the number of enlarged aciculae, a character considered as variable by several authors, and thus created some confusion. Hartmann-Schröder (1974) synonimyzed *S. bidentata* with *S. websteri*, but others which as Campoy (1982) and Parapar et al. (1994) accepted both as valid species.

Feeding Habits.—Several specimens had diatoms in the posterior end of the digestive tract.

Distribution.—Eastern North Atlantic, from Ireland to the Canary Islands. Mediterranean Sea (Balearic Islands).

Streptosyllis websteri Southern, 1914
(Fig. 3A–H)

Streptosyllis websteri Southern, 1914: 26, pl. 2, fig. 3a–f.—Fauvel, 1923: 282, fig. 107.—Campoy, 1982: 312.—Parapar, San Martín, Besteiro and Urgorri, 1994: 94, fig.1f–g.
Streptosyllis pettiboneae Perkins, 1981: 1143, figs. 27a–f, 28a–i.
Non *Streptosyllis websteri* San Martín, 1984: 122, pl. 21.

Material Examined.—Lanzarote: Playa de las Coloradas, Dec. 1993 (4 spec.); Playa Quemada, Dec. 1993 (50); Punta del Callao, Mar. 1995 (48). Fuerteventura: Las Playitas, Sep. 1994 (29). Tenerife: Ensenada de los Abades, Jan. 1994 (8); Feb. 1994 (3); Mar. 1994 (4); Apr. 1994 (6); Jun. 1994 (1); Aug. 1994 (7); Sep. 1994 (1); Oct. 1994 (3); Nov. 1994 (11); Dec. 1994 (6). La Palma: Arrecifes de Tazacorte, Mar. 1994 (1). El Hierro: Puerto de la Estaca, Aug. 1995 (15).

Additional Material Examined.—La Gomera: Punta Llana, MB-36 (1); Playa Santiago, MB-146, (1).

Description.—Body short, fragile, anterior end slightly tapered, posterior end strongly tapered; without color markings, 3.2 mm long, 0.33 mm wide, 41 setigers. Prostomium

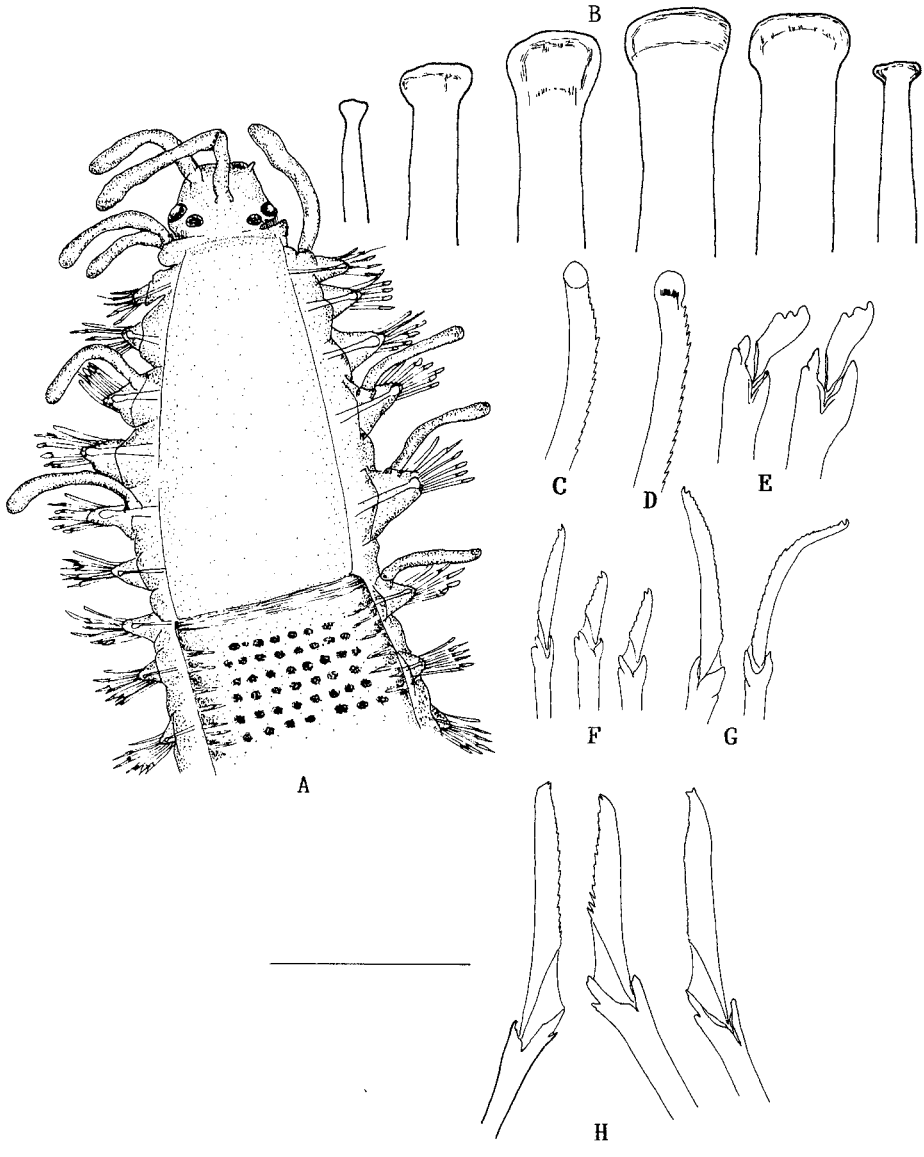

Figure 3. *Streptosyllis websteri.* A. anterior end, dorsal view, B. aciculae, anterior setigers 1–6, C. superior simple seta, anterior setiger, D. same, posterior setiger, E. lower compound setae, anterior setiger, F. upper compound setae, first setiger, G. upper compound setae, setiger 3, H. compound setae, middle and posterior setigers. Scale: A = 264 μm; B–E, H = 30 μm; F, G = 29 μm.

subpentagonal, wider than long, with two pairs of large eyes, in open trapezoidal arrangement, and two anterior small eyespots; two ciliated postero-lateral nuchal organs. Three antennae smooth, median antenna twice as long as prostomium; lateral antennae slightly longer than prostomium; median antennae originating nearly on middle of prostomium, between first pair of eyes; lateral antennae originating near anterior margin of prostomium behind of eyespots. Palps with a pair of cushion-shaped ventral lobes, and a pair of papillae, visible on anterior margin of prostomium. Peristomium shorter than following

segments, visible dorsally, with two pairs of smooth tentacular cirri; dorsal tentacular cirri similar in length to lateral antennae, ventral tentacular cirri shorter (Fig. 3A). Dorsal cirri smooth, club-shaped, similar in length and shape to antennae and tentacular cirri; some dorsal cirri somewhat longer than remaining, with granular inclusions, acquiring a pseudoarticulate appearence. Ventral cirri digitiform, long, with stout cirrophorus and slender tips, longer than parapodial lobe and setae.

Solitary dorsal simple setae from setiger 1, unidentate, slightly curved, serrated on margin, with hyaline distal hood from 6 setiger (Fig. 3C,D). Ventral simple seta absent. Compound setae from first setiger with short bidentate blades (Fig. 3F). Parapodia of setigers 2–5 with modified compound setae of two kinds, two dorsal, long-bladed, bidentate, slender and serrate on edge (Fig. 3G) and 5–8 ventral, with thick shafts and short, bidentate blades (Fig. 3E). Shaft heads of compound setae with longest part bifid. Compound setae from setiger 6 with elongated blades, two small subterminal teeth and slightly serrated, dorso-ventral gradation of blades, 30 μm above, 18 μm below in midbody. From setiger 6, compound setae with indistinct bifid blades (Fig. 3H). Aciculae of setigers 2–5 twice thicker than those of the other setigers, all aciculae with tip distally knobbed (Fig. 3B). Pygidium with three anal cirri, one pair laterally long and a short midventral cirri. Pharynx broad, with a crown of soft papillae, unarmed, extending from anterior end to setigers 3–5. Proventriculus almost three times as long as pharynx, barrel-shaped, extending in 5–7 segments.

Sexual mature specimens were collected throughout the year except in the months of April and July**.** Sexually mature male specimens with sexual products beginning on setigers 11–14; one female with eggs from setiger 10. Coalescent eyes and natatory setae in mature males.

Remarks.—The species *Streptosyllis pettiboneae* Perkins, 1981 is closely related to *S. websteri* Southern, 1914; both species have enlarged aciculae and modified compound setae in the setigers 2–6, as well as similar type of the compound setae from setigers 7. The type material of *S. pettiboneae* (Holotype USNM 60448, paratype USNM 60449) examined, agrees quite well with specimens of *S. websteri* from Canarias and with the original description of Southern.

Feeding Habits.—Several specimens had diatoms, foraminiferans, harpacticoid copepods and ostracods in the digestive tract.

Distribution.—Eastern North Atlantic, from Ireland to the Canary Islands. Florida. Mediterranean Sea.

Streptosyllis templadoi San Martín, 1984
(Fig. 4A–K)

Streptosyllis templadoi San Martín, 1984: 120, pl. 20a–i.

Material Examined.—Tenerife: Ensenada de los Abades, Jan. 1994 (1 spec.); Apr. 1994 (1); Jun. 1994 (4); Jul. 1994 (2); Aug. 1994 (4); Sep. 1994 (3); Oct. 1994 (1); Nov. 1994 (5); Dec. 1994 (3).

Description.—Body elongated, without color markings, 4 mm long, 0.25 mm wide, 42 setigers. Prostomium subpentagonal; two pairs of eyes in open trapeziodal arrangement, nearly in line, and two small anterior eyespots; some specimens with very small eyes. Ciliary bands on anterior and posterior margins of prostomium; two ciliated latero-poste-

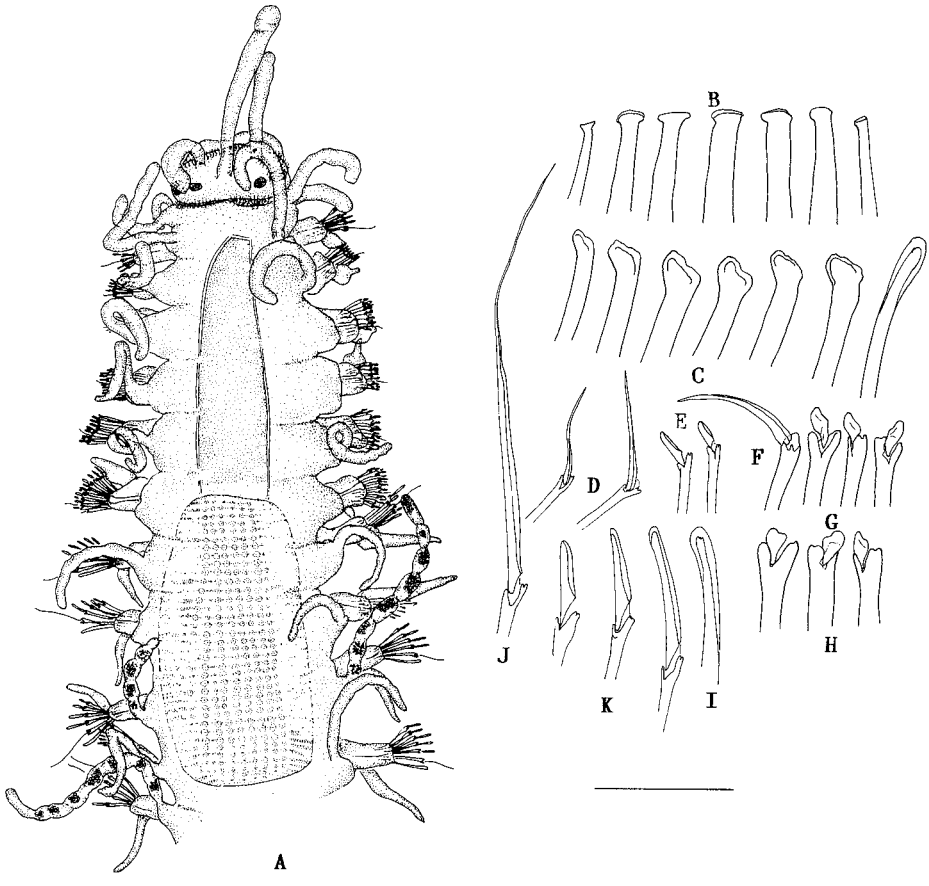

Figure 4. *Streptosyllis templadoi.* A. anterior end, dorsal view, B. aciculae, anterior setigers 1–7, C. superior simple setae, anterior setigers 1–7, D. upper compound setae, setiger 1, E. lower compound setae, setiger 1, F. upper compound seta, setiger 2, G. lower compound setae, same setiger, H. lower compound setae, setiger 4–6, I. dorsal simple seta, setiger 32, J. upper compound seta, same setiger, K. lower compound setae, same setiger. Scale: A = 235 μm; B–K = 29 μm.

rior to prostomium nuchal organs. Three smooth antennae, club-shaped; lateral antennae originating near anterior margin, just behind eyespots, somewhat longer than prostomium and palps together; median antenna orginating on middle of prostomium, about twice as long as lateral antennae. Palps broad, fused at bases, ventrally directed, each with a long distal papilla. Peristomium shorter than following segments; two pairs of tentacular cirri; dorsal tentacular cirri similar in length and shape to lateral antennae; ventral tentacular cirri somewhat shorter (Fig. 4A). Dorsal cirri of anterior segments smooth, similar in length to lateral antennae, somewhat rugose; from proventricular segments, alternating smooth dorsal cirri, shorter than body width and pseudoarticulate dorsal cirri, longer than smooth cirri, and provided with granular inclusions. Bases of dorsal cirri ciliated. Ventral cirri long, wide on bases, with long, acute tips, surpassing level of parapodial lobes, and even of setae.

First setiger with solitary dorsal simple seta, distally bunt and rounded (Fig. 4C), 1–2 compound setae with spinigers, unidentate blades (Fig. 4D) and 7–8 compound setae

with unidentate falcigers, short and slender; all blades provided with an hyaline hood on margin and shafts distally bifid (Fig. 4E). Parapodia of setigers 2–6 each with a solitary dorsal simple seta, similar to those of setiger 1 but wider (Fig. 4C), 1–2 compound setae with short, spinigerous blades, similar to those of setiger 1 (Fig. 4F), and 8–10 compound setae with very short, unidentate blunt blades, without hyaline hoods on margin and homogomph articulation (Fig. 4G,H). From setiger 7, compound setae similar to those of setiger 1 but provided with longer blades and dorsal simple setae slender, provided with a long distal hyaline hood (Fig. 4I). Parapodia each with 1–2 spinigerous compound setae with long blades, about 80–95 μm (Fig. 4J), and 3–5 falcigerous compound setae with blades distally blunt, and dorsoventral gradation, 30–32 μm above, 12–20 μm below (Fig. 4K). Parapodia each with one enlarged acicula, distally truncated; most enlarged aciculae on setigers 2–6. Pygidium with two long anal cirri, pseudoarticulated, provided with granular inclusions, and a solitary short appendage. Pharynx long, through 4–5 segments. Proventriculus wide, through about 5–6 setigers, with about 40 muscle cell rows.

Mature males with sexual products from setiger 11, and provided with natatory setae. Mature specimens have been collected in July, September, November and December; juveniles in September.

Remarks.—*Streptosyllis arenae* Webster and Benedict, 1884, *S. magnapalpa* Hartmann-Schröder, 1981 and *S. templadoi,* are the unique three species of this genus having compound setae with an hyaline hood on the blades; however, the shape of the setae is different in these three species. In *S. arenae,* the hood is small and apical, instead in *S. templadoi* the hood of the blades goes all along their length. In *S. magnapalpa,* only a few blades of the compound setae have a hood.

Distribution.—Mediterranean Sea (Balearic Islands and Italy). Canary Islands.

Streptosyllis campoyi new species
(Fig. 5A–L)

Streptosyllis bidentata (*non* Southern) Campoy, 1982: 314, pl. 25a–j.

Type Material.—Tenerife, Ensenada de los Abades (Type Locality), Holotype (TFMC AN/000200) Sep. 1994. Paratypes: 4 (TFMC AN/000201) Jan. 1994; 16 (DZUL T11CN) Mar. 1994; 5 (DZUL T2CN) Apr. 1994; 2 (DZUL T4CN) Jun. 1994; 7 (DZUL T12CN) Jul. 1994; 17 (DZUL T6CN) Aug. 1994; 10 (DZUL T7CN) Sep. 1994; 8 (DZUL T9CN) Oct. 1994; 4 (DZUL T8CN) Nov. 1994.

Additional Material Examined.—Lanzarote: Playa Quemada, Dec. 1993 (27 spec.). La Palma: Arrecifes de Tazacorte, Mar. 1994 (2). La Gomera: Punta Llana, MB-15 (1); Punta de la Iguala, MB-134 (1).

Description.—Body slender, short, without color markings, tapering slightly in anterior end, tapering strongly in posterior end, 2.04 mm long, 0.17 mm wide, 30 setigers. Prostomium subpentagonal to oval, slightly wider than long; two pairs of eyes in open trapezoidal arrangement and two anterior eyespots. Three antennae smooth; median antenna originating between anterior pair of eyes, about twice as long as prostomium and palps; lateral antennae about half in length of median one, originating near anterior margin of prostomium. Palps small, with pair of cushion-shaped ventral lobes and pair of papillae. Two ciliated dorsal organs between prostomium and peristomium, covering peristomium dorsally; two pairs of smooth tentacular cirri, dorsal tentacular cirri similar

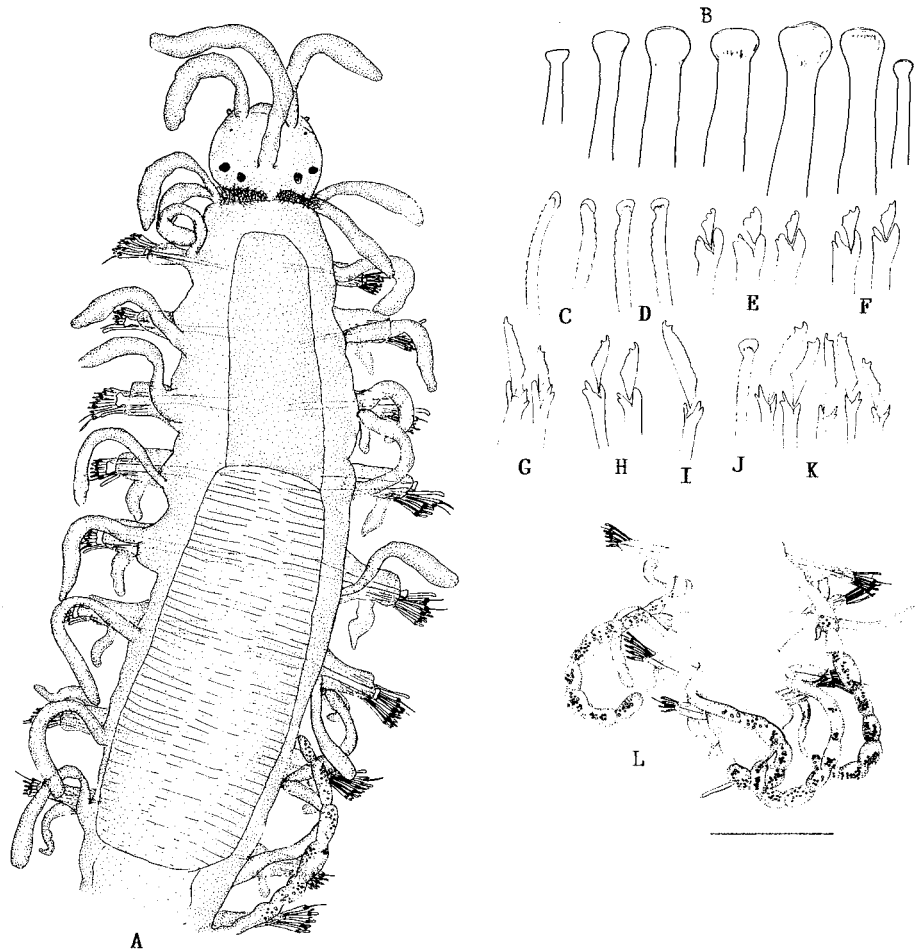

Figure 5. *Streptosyllis campoyi.* A. anterior end, dorsal view, B. aciculae, anterior setigers 1–7, C. superior simple setae, setigers 1 and 2, D. superior simple setae, setigers 11 and 12, E. lower compound setae, setigers 4 and 5, F. lower compound setae, setiger 6, G. upper compound setae, setiger 4, H. lower compound setae, setiger 7, I. upper compound setae, setiger 9, J. dorsal simple seta, setiger 18, K. compound setae, setiger 18, L. posterior end, dorsal view. Scale: A, L = 113 μm; B–K = 30 μm.

in length and shape to lateral antennae, ventral tentacular cirri somewhat shorter (Fig. 5A). Dorsal cirri smooth, club-shaped, similar in shape and length to dorsal tentacular cirri and lateral antennae; from proventricular segments, alternating segments with dorsal cirri longer, pseudoarticulated, with granular inclusions, other segments with smooth dorsal cirri. Parapodial lobes conical, shorter than cirri, with a ciliary dorsal band. Ventral cirri digitiform with stout and bases and long, slender style.

Parapodia each with one dorsal simple seta, 7–11 compound setae and solitary acicula. Solitary dorsal simple setae unidentate, slightly curved with serrated margin, rounded tip in anterior setigers (1–6) (Fig. 5C) and provided with hyaline distal hood from setiger 7 (Fig. 5D,J); simple setae of anteriorly setigers 1–6 slightly wider than remaining setigers.

Compound setae from setigers 1–6 provided with bidentate falcigers including 1–2 upper long bladed (Fig. 5G), slender and serrate on cutting edge and 5–8 stout, short-bladed (Fig. 5E,F). Shaft of compound setae with bifid distal part. Compound setae from setiger 7 bidentate, provided with somewhat hooked distal teeth and large proximal teeth distinctly separated from distal teeth, forming nearly a right angle (Fig. 5H,I,K); blade edges serrated on margin, marked dorso-ventral gradation in length of blades, 22 μm above, 12 μm below in a midbody segment. Ventral simple setae absent. Acicula of setigers 2–6 about twice as thick as those of remaining setigers. All aciculae with tip distally knobbed (Fig. 5B). Pygidium sub-triangular with three anal cirri, pair laterally long (Fig. 5L), easily broken and a short midventral cirri with tuft of cilia. Pharynx wide, unarmed, with a crown of papillae, extending from anterior end to setiger 4–5. Proventriculus long, barrel-shaped, extending through 5 segments. Rows of muscle cells difficult to count**.**

Sexually mature male and female specimens with sexual products from setiger 12. Males with coalescent reddish-brown, lensed eyes and natatory setae. Specimens with sexual products have been observed almost year round, in December in Lanzarote, in January, March, June, September and November in Tenerife, and in March in La Palma. In the samples from Tenerife, an increase in the number of juveniles was observed in September and November.

Remarks.—*Streptosyllis campoyi* n. sp. is closely related to *S. bidentata* and *S. websteri* and differs mainly by having enlarged aciculae and modified compound setae in the setigers 2–6; the other two species have them in the setigers 2–5. The blades of the compound setae in *S. campoyi* have both teeth very well separated, forming nearly a right angle, different from those of *S. bidentata* and *S. websteri*.

Feeding Habits.—Some specimens had ostracods in the digestive tract.

Distribution.—Atlantic: Cantabric Sea (Guipúzcoa); Canary Islands (Lanzarote, Tenerife and La Palma).

Etymology.—The species is named in honor to Dr. Antonio Campoy who dedicated a very important effort to the family Syllidae.

Key for the Identification of the Species of *Streptosyllis* from the Canary Islands

1a. Enlarged aciculae in setigers 2–5 2
1b. Enlarged aciculae in setigers 2–6 3
2a. Blades of the compound setae distinctly bidentate. Aciculae of setiger 6 and 7 somewhat larger than those of the following setigers, but more slender than those of setigers 2–5 ... *S. bidentata*
2b. Blades of the compound setae indistinctly bidentate. Aciculae of setiger 6 much slender than those of setigers 2–5, similar to those of following segments ..... *S. websteri*
3a. Blades of compound setae unidentate, provided with an hyaline hood on margin and distally .... *S. templadoi*
3b. Blades of compound setae strongly bidentate, without hyaline hood ..... *S. campoyi*

Discussion

S. bidentata and *S. websteri* are the two less demanding species; they present higher density of population and have been found in samples of *C. nodosa* as well as in sandy bottoms, being less abundant in these sandy substrats. They were collected in muddy sand (Q_{50} = 0.13–0.17), fine sand (Q_{50} = 0.19–0.22), and medium sand (Q_{50} = 0.33–0.36),

mainly of moderately sorting (S_0 = 1.36–1.66). These species are found in all the Canary Islands; at stations of medium sand (L2 and T2) and some stations of fine sand (C1 and F1), the vertical distribution in sediments this species can be found up to 20–30 cm layer.

S. templadoi and *S. campoyi* are more stenotopic species, the first is a rare species of low density in the samples and only was collected at a station (T1) with the highest percentage of nitrogen (0.03%), while *S. campoyi* was collected in all stations with low percentage of carbonates (2.90–7.50%), except in the island of El Hierro (H1), the most western island and with higher temperatures, where it seems that the island has not been colonized yet. The vertical distribution in the sediment of *S. templadoi* was always in 0–5 cm layer, while *S. campoyi* was found downwards as far as 20-30 cm sediment layer at a station (L2) of medium sand with higher percentages of organic matter (1.5%).

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